



MEMORANDUM

March 2, 2006

TO: Scott Ullery, City Manager

FROM: Emad Elshafei, Acting Chief, Traffic and Transportation
Katherine Kelly, Transportation Planner

VIA: Craig L. Simoneau, Director of Public Works

SUBJECT: Diversion Plan at E. Argyle St.

This memorandum is to provide background information and recommendations that address concerns about traffic volumes and safety on Argyle St. The recommendations are based on technical analyses completed by staff and input from community members.

Objectives of staff's recommendations are to:

1. Reduce traffic volumes on Argyle St. to a level below thresholds which qualify the street for traffic diversion measure(s) based on the City's Neighborhood Traffic Control Guidelines;
2. Minimize the potential for major changes in traffic volumes on adjacent neighborhood streets;
3. Retain access for residents who use E. Argyle St. to access their homes;
4. Recommend a strategy that is enforceable; and
5. Improve pedestrian and vehicular safety.

Background

A request to close access to E. Argyle St. at its intersection with Monroe St. was submitted to staff on February 9, 2005 via a memo and petition signed by residents of Argyle and S. Washington Streets. The request was based on concerns that these streets are "overrun with cut-through traffic". In addition the letter stated that residents are concerned about the absence of sidewalks on Argyle St., especially with regard to the safety of children walking to and from schools.

In response to the petition, Traffic and Transportation staff conducted technical analyses and determined that a Diversion Plan was warranted on Argyle St. for the A.M. peak hours. The determination was based on traffic counts conducted in September 2004, which were the most recent counts for that street at that time. The counts showed that 180 vehicles accessed Argyle St. between 7-8 A.M. in one direction and over 200

vehicles accessed Argyle St. from both directions. This volume meets the criteria set forth in the Neighborhood Traffic Control Guidelines to make it eligible for a Diversion Plan¹ *during a one-hour period*. Counts for the P.M. peak hours showed that the number of vehicles accessing Argyle St. *did not* meet criteria to make it eligible for a Diversion Plan. Also, the count data showed that 24-hour traffic volume was near 1800 vehicles, which did not meet criteria to implement a twenty-four hour traffic Diversion Plan.

To achieve a balanced solution aimed at easing congestion on Argyle St. and minimizing the impact of a diversion on the adjacent neighborhoods accessing that street, staff recommended in May 2005 that a *right-turn restriction be implemented from 7-9 A.M.* onto Argyle St. for vehicles heading southbound on Monroe St. The restriction was recommended for these two hours to address the A.M. peak hour flow of traffic that exceeded the one-hour traffic volume threshold. *Implementation of a sidewalk* was also recommended.

Additional Analyses

Following Traffic and Transportation staff recommendations in May 2005, some residents expressed concern that a 7-9 A.M. turn restriction would only minimally reduce traffic volumes, and that volumes would soon meet warrants again shortly after implementation. Staff agreed to conduct additional traffic counts, the purpose of which was to determine if additional warrants for a traffic diversion plan were met and to compare count volumes.

In October 2005, the City Manager, with Traffic and Transportation staff and Argyle St. citizens, reviewed additional traffic counts taken in June 2005 and September 2005. The highest traffic volumes from those counts were 160 vehicles between 7-8 A.M. in one direction, 211 vehicles from both directions between 6-7 P.M., and a 24-hour volume of 2,164 vehicles. These counts met criteria outlined in the Neighborhood Traffic Control Guidelines to make it eligible for peak hour restrictions and for a 24-hour traffic Diversion Plan.

As a result, staff recommended and the City Manager authorized that two 24-hour right-turn restrictions be implemented on the corner of Argyle St. and Monroe St. The restrictions would prohibit right turns onto Argyle St. from Monroe St. and right turns onto Monroe St. from Argyle St.

Following a notice sent to the community about the pending two turn restrictions, staff received comments from neighborhood associations potentially affected by turn restrictions that public outreach had not been sufficient and they requested that the City Manager reconsider the decision to limit access to E. Argyle St. via Monroe St. Citizens also expressed this concern during citizen's forum at the October 24, 2005 Mayor and Council meeting. At that time, Mayor and Council suggested that a final decision be

¹ The City's Neighborhood Traffic Control Guidelines state that secondary residential streets are eligible for traffic diversion plans if any one of the following criteria are met:
A minimum of: a) 2,000 vehicles per day in both directions, or b) 200 vehicles in any hour in both directions, or c) 150 vehicles in any hour in one direction.

delayed and that additional public outreach be conducted. The City Manager then requested that Traffic and Transportation staff conduct a meeting with Argyle and S. Washington St. residents, plus leaders from adjacent HOA and Civic Associations.

On October 28, 2005, Traffic and Transportation staff held a meeting with Argyle and S. Washington St. residents, plus leaders from adjacent HOA and Civic Associations. At that meeting, three primary concerns expressed were that, with turn restrictions, 1) traffic would divert to other adjacent streets such as Blandford St., W. Lynfield Dr., Cabin John Pkwy., and Lynn Manor Court, a privately-owned street; 2) residents would be inconvenienced by having to travel to and from Maryland Ave. via Fleet St., which would increase their travel time; and 3) access to the residence at 609 Monroe St. would be more difficult for delivery and emergency vehicles, whose primary access is via E. Argyle St.

As follow-up, it was agreed during the meeting that staff would:

1. Conduct baseline traffic counts if they had not already been done recently on Lynn Manor Ct., Blandford Dr., W. Lynfield Dr., and Monroe St..
2. Investigate timing and optimization of traffic signals at Fleet St./Maryland Ave. and Monroe St./Maryland Ave. The purpose of this is to minimize waiting time at these traffic signals for cars exiting Hungerford/New Mark Commons neighborhoods from Monroe St. to Maryland Ave. via Fleet St.
3. Conduct travel time analyses to compare travel times between Monroe St. and Maryland Ave. using Argyle/S. Washington Streets, and using Monroe St. to Fleet St. to Maryland Ave. The purpose of this was to determine potential increases in travel times to Maryland Ave. if turn restrictions were to be implemented at E. Argyle St. and Monroe St.
4. Research the feasibility and cost of relocating the existing traffic signals at Maryland Ave./Argyle St. to Maryland Ave. at New Mark Esplanade or at S. Washington St. This was in response to a recommendation presented at the October 28, 2005 meeting. The objective of the recommendation would be to divert traffic that currently accesses Maryland Ave. via the signal at Argyle to another street, effectively decreasing the volume of traffic on Argyle St.
5. Meet with the City Manager during the week of November 7 to discuss the outcome of traffic counts, signal timing options for Fleet St./Maryland Ave and Fleet St./Monroe St., and the possibility of relocating the existing traffic signal at Maryland Ave. and Argyle St.

Following the additional analysis, staff recommended to the City Manager that one turn restriction be implemented to prohibit a right turn from southbound Monroe St. onto E. Argyle St., in order to reduce the traffic volume to a level below the threshold established in the Neighborhood Traffic Control Guidelines. Staff also recommended that the timing of signals at Fleet St. and Monroe St., and Fleet St. and Maryland Ave. *not* be changed due to the fact that the current timing adequately manages existing traffic from all directions, allowing more time for streets that carry larger volumes of traffic. Also, the travel-time analyses showed a minimal impact to travel time, with an average of nine seconds difference to travel via Fleet St. rather than Argyle St. Additionally, Maryland

Ave. carries a higher volume of traffic than Fleet St. and therefore signal timing must give more “green light” time to move vehicles along Maryland Ave. The City Manager requested that staff present the new recommendation at a public meeting, in order to provide a forum to hear additional comments, input, and options from the public prior to making a final decision about a Traffic Diversion Plan.

Public Meetings

On November 22 and December 1, 2005, staff conducted meetings to share results of additional traffic counts and analyses completed during October and November 2005, their new recommendations to the City Manager, and to provide a forum for comment and provide input on other possible options for addressing traffic volume on E. Argyle St. The following sections are brief summaries on the primary issues brought up by residents during those meetings.

Traffic Volumes and Pedestrian Safety

- Residents of Argyle and S. Washington Streets stated their concern about the excessive volume of traffic using these streets to access Maryland Ave. and Monroe St. They also expressed that because there are no sidewalks on Argyle St., pedestrian safety—especially children walking to and from school—is compromised due to the existing volume of traffic. In addition, they stated one right-turn restriction from Monroe St. onto Argyle St. was not adequate to reduce the volume of traffic to acceptable levels.
- Residents of neighborhoods adjacent to Argyle St. expressed concern that, with turn restrictions at the intersection of E. Argyle St. and Monroe St., traffic would be diverted onto other neighborhood streets, increasing traffic volumes on their streets and making them less safe for pedestrians.

Access

- Residents of Courthouse Walk HOA stated that drivers would likely use Lynn Manor Drive to reach Maryland Ave. via S. Washington St. if access to Argyle St. was restricted at Monroe St. Lynn Manor Drive is a private drive maintained by the HOA and residents of Courthouse Walk expressed concern that the projected additional traffic would increase their maintenance costs and make the road less safe for pedestrians and residents.
- There was discussion about removing the left-turn restriction sign at the intersection of Lynn Manor Dr. and S. Washington St. in order to retain access to Argyle St. for Courthouse Walk residents.
- The scenario of restricting left turns from S. Washington St. onto Argyle St. was proposed. This would force vehicles to take a right onto Argyle St. and would limit access to Monroe St. from S. Washington St.
- Several residents expressed frustration that travel times to and from I-270 would be increased due to the fact that they would have to use the Monroe St.-to Fleet St.-to Maryland Ave. route rather than the more direct Argyle St. to Maryland Ave. route.

- The fact that Argyle St. is a public street was mentioned. Some residents expressed opposition to limiting access to a public street.
- Some residents stated that Argyle St. has excessive volumes of traffic that should be directed to streets that currently have less volume of traffic.
- Residents at 609 Monroe St. stated that their primary access is via E. Argyle St., and that with turn restrictions, access to their residence would be confusing for emergency vehicles, delivery trucks, and visitors.

Truck and Bus Traffic on Argyle St.

Residents stated that several construction and delivery trucks use Argyle St. to access Maryland Ave. from Monroe St., and MD355 from Maryland Ave. via Argyle St. to Fleet St. to Richard Montgomery Dr./MD355. They also stated that Montgomery County Public School buses use Argyle St. to reach Maryland Ave. even though there are no school bus stops on Argyle St. or S. Washington St.

Connecting Neighborhoods

It was proposed that the City make new street connections between neighborhoods to disperse traffic volumes. Two examples mentioned were: 1) make a new street connection between Monroe St. and New Mark Esplanade, to create access to Maryland Ave. via New Mark Esplanade/Potomac Valley Rd., and 2) build Fleet St.-extended, between Fleet St. and Ritchie Pkwy./Wootton Pkwy.

Signage

An additional recommendation was submitted to staff following the meeting to implement signage to direct drivers to use Fleet St. rather than Argyle and S. Washington streets to access Dogwood Park. The signage could be posted on Maryland Ave. and Monroe St.

Sidewalk

Concurrent with review of the traffic diversion request, staff began outreach to discuss implementation of sidewalk on Argyle St. Staff felt that design and determination of a traffic diversion measure and a sidewalk should be coordinated, as one project may affect the other. On September 14, 2005 staff hosted a “walking block” meeting with residents to discuss sidewalk on Argyle St. After an initial comment period, it was determined that there was consensus to implement a sidewalk on Argyle St.

On November 29, 2005 staff hosted a public meeting to share concepts for a sidewalk on Argyle St. and to listen to residents’ concerns and comments on the different alternatives. Following a public comment period from November 29 – December 27, it was determined that there was consensus to implement concept 2A, sidewalk on the west/southwest side of E. Argyle St. between Monroe St. and Maryland Ave. This concept includes narrowing the road from 26’ to a minimum of 20’ on Argyle St. between S. Washington St. and Maryland Ave., and on a portion of E. Argyle St. between S. Washington St. and Monroe St. The concept also limits parking to one side of the street. During the comment period concerns were expressed that narrowing Argyle St.

would create an unsafe condition; two cars could not pass safely and emergency vehicles required a wider road.

Staff Recommendations

After a series of technical analyses and public meetings Traffic and Transportation staff reviewed and deliberated several options for traffic on and near Argyle St. Based on the deliberations and analyses, staff recommends the following:

1. Designate E. Argyle St. as a one-way street heading west/northwest bound between Monroe St. and Maryland Ave. Rationale for this recommendation is as follows:

- The following table shows theoretical traffic reduction scenarios and the resulting traffic counts. Following the table, pros and cons for this option are listed. Note that numbers in the table are based on traffic counts conducted in June, 2005 which resulted in a daily total traffic volume of 2,164 vehicles:

	Current Volumes/ Thresholds	One-Way Argyle St. (make west/northwest from Monroe to Maryland)		"No Right-Turn" restriction from Monroe onto Argyle.		"No Right-Turn" restriction from Argyle onto Monroe		Two "No Right-Turn" restrictions (Monroe onto Argyle + Argyle onto Monroe)	
		Reduction (# of Cars)	Total Volume	Reduction (# of Cars)	Total Volume	Reduction (# of Cars)	Total Volume	Reduction (# of Cars)	Total Volume
7-8 AM	211/200	51	160	77	134	17	194	94	117
8-9 AM	138/200	33	105	46	92	9	129	55	83
7-9 AM	349/400	84	265	123	226	26	323	149	200
4-5 PM	136/200	59	77	39	97	33	103	72	64
5-6 PM	175/200	83	92	50	125	34	141	84	91
4-6 PM	311/400	142	169	89	222	67	244	156	155
7-9 AM + 4-6 PM	660/800	226	434	212	448	93	567	305	355
24-Hour	2164/2000	768	1396	692	1472	299	1865	991	1173

Pros:

- As shown in the table, making Argyle St. one way would theoretically decrease daily traffic volumes 35%, from 2,164 to 1,396, a level below the threshold for traffic diversion.

- This measure is more easily enforced than turn-restrictions, and it is more likely to be observed since it will be more noticeable if a driver is driving the wrong way down a one-way street.
- The 24-hour volume of 1,396 projected with the Argyle St. one-way scenario presents a more realistic projection of volumes than volumes projected with turn restrictions. While the option to implement two right-turn restrictions brings traffic volumes to the lowest of the options listed above (1,173 vehicles in a 24-hour period), it does not address the concern that some vehicles would not observe the turn restrictions. In this case drivers might use Blandford St. to circumvent the turn restrictions and access Argyle St. via Monroe St. heading north/northeast bound, and thus bring the traffic volume on Argyle St. to a much higher volume than the projected 1,173 vehicles per day. This would also increase traffic volumes on adjacent neighborhood streets.
- Traffic volumes on S. Washington St. are also expected to decrease substantially.
- The potential for major increases in traffic volumes on adjacent neighborhood streets is almost non-existent. Diverted traffic that would otherwise use S. Washington St. from Maryland Ave. to access Monroe St. will be rerouted to Fleet St. and Monroe St. The projected average delay between the two routes is 9 seconds.
- Access to residences on E. Argyle St. between Monroe St. and S. Washington St. are not restricted from Monroe St. at anytime.
- This option matches a solution suggested by some residents during the meetings conducted by City staff to post a left-turn restriction sign on S. Washington St. allowing residents only to access residences on E. Argyle St. between Monroe St. and S. Washington St. (Except for Residents). This sign however, would be confusing, difficult to enforce, and it is not the City's or County's standard to implement such a sign.

Cons:

- E. Argyle residents between S. Washington St. and Monroe St. will have one-way in and one-way out of their street; westbound to Maryland Avenue.
 - Although the morning peak period (7-9 AM) will witness an approximately 24% decrease in volumes (from 349 to 265 vehicles), this decrease will only affect the portion between S. Washington St. and Monroe St. No change during these hours is expected to occur in the section between S. Washington St. and Maryland Ave.
2. *Implement Argyle St. Sidewalk Concept 2A with parking restrictions* (sidewalk on the west/southwest side of Argyle St. between Monroe St. and Maryland Ave., with limited parking on the east/northeast side). Rationale for this recommendation is as follows:
- This concept enhances pedestrian and vehicular safety on E. Argyle St. by narrowing the street and providing a pedestrian facility.

- Minimizes the number of trees that would need to be removed.

If Argyle St. traffic flow is made one-way, staff recommends that sidewalk options for Concept 2A be reviewed again by the public. **Attachment 1** outlines facts about the original Concept 2A as well as potential alterations to the original concept that may affect parking for three residences on Argyle St.

3. Contact Montgomery County Public School if there are reports of buses using Argyle or S. Washington Streets. In response to a request submitted by the City to Montgomery County Public Schools, bus drivers have been directed to not travel on Argyle and S. Washington streets. The rationale for this recommendation is as follows:
 - Minimize the number of large vehicles traveling on Argyle and S. Washington Streets.
 - There are no bus stops on these streets.
4. Eliminate Trucks on Argyle St.
 - A work order was issued and implemented for modifications to three truck restriction signs that protect Argyle Street, and more generally, all residential streets in the Hungerford/Stoneridge and Lynfield neighborhoods. A new sign was installed on westbound Mount Vernon Pl. at Fleet St. This closes a gap in the protective "ring" around the neighborhood, and appears to be the key location in preventing through-trucks from reaching Argyle St. The Truck Restriction sign on southbound Monroe St. was upgraded and the W. Edmonston Dr. sign—although in good shape—was adjusted so that it was more visible for drivers.
5. Post directional signs to Dogwood Park on Maryland Ave. to lead traffic to Fleet St. instead of S. Washington and Argyle Streets, to reroute traffic using E. Argyle to access Dogwood Park.
 - The signs have been fabricated and will be installed during the next few weeks.
6. Monitor Signal Timing at Intersections of Fleet St./Monroe and Fleet St./Maryland Ave.
 - Minimize any potential delays.

Next Steps

1. Notification sent to neighborhoods and residences potentially impacted by designating Argyle St. as one-way.
2. A public meeting will be held to present staff's recommendations.
3. The City Manager will make a decision on what option(s) to implement.
4. Traffic order prepared to install signs indicating new traffic patterns on Argyle St. Installation typically takes 4-6 weeks.
5. Coordination with Police to enforce the traffic restrictions.

6. Sidewalk implemented on E. Argyle St. Construction is scheduled for summer 2006.
7. Follow-up traffic counts conducted in Fall 2006 on Argyle St., S. Washington St., Monroe St., W. Lynfield St., Blandford St., and Cabin John Pkwy. to analyze changes in traffic patterns and volumes due to the traffic restrictions.
8. Reports of any school buses on Argyle and/or S. Washington Streets would be sent to Montgomery County Public Schools staff, and staff would follow-up to ensure that buses are not traveling on these streets.
9. Directional signs to Dogwood Park posted on Maryland Ave. to lead traffic to Fleet St. instead of S. Washington and Argyle Streets. The signs have been fabricated and will be installed during the next few weeks.
10. Signal timing monitored at Fleet St. and Monroe St., and at Maryland Ave. and Fleet St. to ensure that the network operates efficiently.

Attachment 1: Argyle St. Sidewalk Concept 2A: New sidewalk on west/southwest side of Argyle St. from Maryland Ave. to Monroe St.

Original Concept 2A as Presented at Public Meeting on Nov. 29, 2005

1. Narrowed intersection at Argyle St./Maryland Ave. creates a less appealing illegal right-turn.
2. Concrete walk along 100 W. Argyle is used as part of the sidewalk link.
3. Only one tree lost (10" Maple), located on the west/southwest corner of Argyle St. and Monroe St.
4. Parking only allowed on west/southwest side of street from Maryland to S. Washington St.
5. Parking not allowed on Argyle (between S. Washington St. and Monroe) where street width is 20'.
6. Retaining wall at Monroe intersection is required (2 to 4' in height & 35' in length).
7. Limit of grading will be within approx. 10' from back of sidewalk.
8. Sidewalk in existing roadway from Maryland to 7 East Argyle.
9. Sidewalk behind existing curb from 7 East Argyle to Monroe.

Potential Modifications to Concept 2A if Street Becomes One-Way

1. Street narrows to 20' all the way from Maryland Ave. to Monroe St.
2. Sidewalk is in existing roadway (not behind the curb) from Maryland Ave. to Monroe St.
3. Parking is only allowed on west/southwest side of street from Maryland Ave. to Monroe St.
4. A retaining wall is not required.

Detailed drawings of Concept 2A as presented on Nov. 29, 2005, and the potential modifications, can be found online at:

<http://www.rockvillemd.gov/residents/traffic/pdf/argyle-sidewalk-concepts.pdf>